

NSWER 58 OF 68 USPATFULL

ACCESSION NUMBER: 1998:101389 USPATFULL
TITLE: Stabilized gas emulsion containing phospholipid for ultrasound contrast enhancement
INVENTOR(S): Trevino, Leo A., San Diego, CA, United States
Schutt, Ernest George, San Diego, CA, United States
Klein, David H., Carlsbad, CA, United States
Tarara, Thomas E., San Diego, CA, United States
Weers, Jeffry G., San Diego, CA, United States
Kabalnov, Alexey, San Diego, CA, United States
PATENT ASSIGNEE(S): Alliance Pharmaceutical Corp., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5798091		19980825
APPLICATION INFO.:	US 1995-395680		19950228 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-284083, filed on 1 Aug 1994, now patented, Pat. No. US 5605673 which is a continuation-in-part of Ser. No. US 1993-99953, filed on 30 Jul 1993, now patented, Pat. No. US		

5414600

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Hollinden, Gary E.
LEGAL REPRESENTATIVE: Knobbe, Martens Olson & Bear, LLP
NUMBER OF CLAIMS: 35
EXEMPLARY CLAIM: 17
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 1930
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 59 OF 68 USPATFULL

ACCESSION NUMBER: 1998:19426 USPATFULL
TITLE: Systems for the formation of microbubbles
INVENTOR(S): Schutt, Ernest G., San Diego, CA, United States
Anderson, Charles David, Lebanon, NJ, United States
Evitts, David P., La Jolla, CA, United States
PATENT ASSIGNEE(S): Alliance Pharmaceutical Corp., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5720938		19980224
APPLICATION INFO.:	US 1995-476079		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-284083, filed on 1 Aug 1994, now patented, Pat. No. US 5605673 which is a continuation-in-part of Ser. No. US 1993-99951, filed on 30 Jul 1993, now abandoned		

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Hollinden, Gary E.
LEGAL REPRESENTATIVE: Knobbe, Martens, Olson & Bear
NUMBER OF CLAIMS: 46
EXEMPLARY CLAIM: 1,20
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 1868

L10 ANSWER 60 OF 68 USPATFULL

ACCESSION NUMBER: 1998:4213 USPATFULL

TITLE: Phase shift colloids as ultrasound contrast agents
 INVENTOR(S): Quay, Steven C., Pacific Palisades, CA, United States
 PATENT ASSIGNEE(S): Sonus Pharmaceuticals, Inc., Bothell, WA, United States
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5707606		19980113
APPLICATION INFO.:	US 1995-467304		19950606 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-8172, filed on 25 Jan 1993, now patented, Pat. No. US 5558855		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Hollinden, Gary E.		
LEGAL REPRESENTATIVE:	Limbach & Limbach L.L.P.		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1930		

L10 ANSWER 61 OF 68 USPATFULL
 ACCESSION NUMBER: 97:114912 USPATFULL
 TITLE: Stable microbubble precursors
 INVENTOR(S): Schutt, Ernest G., San Diego, CA, United States
 Anderson, Charles David, Lebanon, NJ, United States
 Evitts, David P., La Jolla, CA, United States
 PATENT ASSIGNEE(S): Alliance Pharmaceutical Corp., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5695741		19971209
APPLICATION INFO.:	US 1995-486531		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-284083, filed on 1 Aug 1994, now patented, Pat. No. US 5605673 which is a continuation-in-part of Ser. No. US 1993-99951, filed on 30 Jul 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Hollinden, Gary E.		
LEGAL REPRESENTATIVE:	Knobbe, Martens, Olson & Bear LLP		
NUMBER OF CLAIMS:	76		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	1960		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L10 ANSWER 62 OF 68 USPATFULL
 ACCESSION NUMBER: 97:61439 USPATFULL
 TITLE: Thrombolytic agents and methods of treatment for thrombosis
 INVENTOR(S): Porter, Thomas R., Omaha, NE, United States
 PATENT ASSIGNEE(S): The Board of Regents of the University of Nebraska, Lincoln, NE, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5648098		19970715
APPLICATION INFO.:	US 1995-544204		19951017 (8)
DOCUMENT TYPE:	Utility		

FILE SEGMENT: Granted
PRIMARY EXAMINER: Hulina, Amy
LEGAL REPRESENTATIVE: Zarley, McKee, Thomte, Voorhees, & Sease
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
LINE COUNT: 509
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 63 OF 68 USPATFULL
ACCESSION NUMBER: 97:51700 USPATFULL
TITLE: Stabilized microbubble compositions
INVENTOR(S): Schutt, Ernest G., San Diego, CA, United States
Evitts, David P., La Jolla, CA, United States
Kinner, Rene Alta, San Diego, CA, United States
Anderson, Charles David, Lebanon, NJ, United States
Weers, Jeffry G., San Diego, CA, United States
PATENT ASSIGNEE(S): Alliance Pharmaceutical Corp., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5639443		19970617
APPLICATION INFO.:	US 1995-405447		19950316 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-99951, filed on 30 Jul 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Burn, Brian M.		
ASSISTANT EXAMINER:	Cebulak, Mary		
LEGAL REPRESENTATIVE:	Knobbe, Martens, Olson & Bear		
NUMBER OF CLAIMS:	52		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1497		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L10 ANSWER 64 OF 68 USPATFULL
ACCESSION NUMBER: 97:38180 USPATFULL
TITLE: Ultrasound imaging method using microbubbles
INVENTOR(S): Schutt, Ernest G., San Diego, CA, United States
Anderson, Charles D., Lebanon, NJ, United States
Evitts, David P., La Jolla, CA, United States
PATENT ASSIGNEE(S): Alliance Pharmaceutical Corp., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5626833		19970506
APPLICATION INFO.:	US 1995-480853		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-284083, filed on 1 Aug 1994 which is a continuation-in-part of Ser. No. US 1993-99951, filed on 30 Jul 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Hollinden, Gary E.		
LEGAL REPRESENTATIVE:	Knobbe, Martens, Olson & Bear		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	1762		

L10 ANSWER 65 OF 68 USPATFULL
 ACCESSION NUMBER: 97:15836 USPATFULL
 TITLE: Stabilized microbubble compositions for ultrasound
 INVENTOR(S): Schutt, Ernest G., San Diego, CA, United States
 Anderson, Charles D., Lebanon, CA, United States
 Evitts, David P., La Jolla, CA, United States
 PATENT ASSIGNEE(S): Alliance Pharmaceutical Corp., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5605673		19970225
APPLICATION INFO.:	US 1994-284083		19940801 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-99951, filed on 30 Jul 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Burn, Brian M.		
ASSISTANT EXAMINER:	Cebulak, Mary C.		
LEGAL REPRESENTATIVE:	Knobbe, Martens Olson & Bear		
NUMBER OF CLAIMS:	82		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	2000		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L10 ANSWER 66 OF 68 USPATFULL
 ACCESSION NUMBER: 97:5709 USPATFULL
 TITLE: Method for preparing storage stable colloids
 INVENTOR(S): Quay, Steven C., Pacific Palisades, CA, United States
 PATENT ASSIGNEE(S): Sonus Pharmaceuticals, Bothell, WA, United States (U.S.)
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5595723		19970121
APPLICATION INFO.:	US 1993-148284		19931108 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-8172, filed on		
DOCUMENT TYPE:	25 Jan 1993		
FILE SEGMENT:	Utility		
PRIMARY EXAMINER:	Granted		
ASSISTANT EXAMINER:	Prior, Kimberly J.		
LEGAL REPRESENTATIVE:	Cebulak, Mary C.		
NUMBER OF CLAIMS:	Limbach & Limbach L.L.P.		
EXEMPLARY CLAIM:	31		
LINE COUNT:	1		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L10 ANSWER 67 OF 68 USPATFULL
 ACCESSION NUMBER: 96:87349 USPATFULL
 TITLE: Phase shift colloids as ultrasound contrast agents
 INVENTOR(S): Quay, Steven C., Pacific Palisades, CA, United States
 PATENT ASSIGNEE(S): Sonus Pharmaceuticals, Bothell, WA, United States (U.S.)
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5558855		19960924
APPLICATION INFO.:	US 1993-8172		19930125 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Raymond, Richard L.		
ASSISTANT EXAMINER:	Cebulak, Mary C.		
LEGAL REPRESENTATIVE:	Limbach & Limbach, L.L.P.		
NUMBER OF CLAIMS:	22		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1957		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L10 ANSWER 68 OF 68 USPATFULL
 ACCESSION NUMBER: 96:87347 USPATFULL
 TITLE: Phase shift colloids as ultrasound contrast agents
 INVENTOR(S): Quay, Steven C., Pacific Palisades, CA, United States
 PATENT ASSIGNEE(S): Sonus Pharmaceuticals, Bothell, WA, United States
 (U.S.
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5558853		19960924
APPLICATION INFO.:	US 1994-182024		19940119 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-148284, filed on 8 Nov 1993 which is a continuation-in-part of Ser. No. US 1993-8172, filed on 25 Jan 1993		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dees, Jose G.		
ASSISTANT EXAMINER:	Cebulak, Mary C.		
LEGAL REPRESENTATIVE:	Limbach & Limbach, Bengtsson, W. Patrick		
NUMBER OF CLAIMS:	48		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2673		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

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L10 ANSWER 68 OF 68 USPATFULL
 SUMM Known **gaseous** agents include **microbubbles** stabilized by the addition of various amphiphilic materials to the aqueous media, by materials that increase viscosity, and **gaseous** precursors, . . . effects in the pig (Ostensen J, Hede R, Myreng Y, Ege T, Holtz E.) Intravenous injection of Albunex microspheres causes **thromboxane** mediated pulmonary hypertension in pigs, but not in monkeys or rabbits. Acta Physiol Scand 144: 307-315, 1992). At doses as.
 DETD . . .
 CLM What is claimed is:
 28. The agent according to claim 27 wherein said chemical is selected from the group consisting of **perfluoropropane**, **perfluorobutane** and **perfluoropentane**.
 33. The agent according to claim 32 wherein said chemical is selected from the group consisting of **perfluoropropane**, **perfluorobutane**, **perfluoropentane** and **perfluorohexane**.

42. The agent according to claim 41 wherein said chemical is selected from the group consisting of **perfluoropropane**, **perfluorobutane** and **perfluoropentane**.

47. The agent according to claim 46 wherein said chemical is selected from the group consisting of **perfluoropropane**, **perfluorobutane** and **perfluoropentane**.

IT 60-29-7, Diethyl ether, biological studies 64-17-5, Ethanol,
biological studies 76-19-7, Perfluoropropane 78-78-4, Isopentane
106-97-8, Butane, biological studies 107-06-2, 1,2-Dichloroethane,
biological studies 109-66-0, Pentane, biological studies 109-93-3,
Vinyl ether 111-65-9, Octane, biological studies 111-84-2, Nonane
111-86-4, Octylamine 112-40-3, Dodecane 115-10-6, Methyl ether
122-32-7, Triolein 124-68-5, 2-Amino-2-methyl-1-propanol 151-67-7,
Halothane 287-23-0, Cyclobutane 287-92-3, Cyclopentane 306-94-5,
Perfluorodecalin 307-34-6, Perfluoroctane 335-95-5, Sodium
perfluoroctanoate 335-99-9 355-25-9, Decafluorobutane
355-42-0, Perfluorohexane 374-51-6, Dodecafluoroneopentane 376-77-2,
Perfluorocyclopentane 463-82-1, Neopentane 507-63-1,
1-Iodoperfluoroctane 678-26-2, Dodecafluoropentane 7732-18-5,
Water,
biological studies 30899-19-5, Pentanol 39660-55-4,
Octafluoropentanol 91863-00-2
(phase-shift colloids as ultrasound contrast agents)